Fatigue and Traumatic Brain Injury

Based on Research by TBI Model Systems

What is fatigue?

Fatigue is a feeling of exhaustion, tiredness, weariness or lack of energy. After TBI, you may have more than one kind of fatigue:

1. Physical fatigue: “I’m tired and I need to rest. I’m dragging today.”
2. Psychological fatigue: “I just can’t get motivated to do anything. Being depressed wears me out; I just don’t feel like doing anything.”
3. Mental fatigue: “After a while, I just can’t concentrate anymore. It’s hard to stay focused. My mind goes blank.”

Why is fatigue important?

When you are fatigued, you are less able to think clearly or do physical activities. If you are overwhelmed by fatigue, you have less energy to care for yourself or do things you enjoy. Fatigue can have a negative effect on your mood, physical functioning, attention, concentration, memory and communication. It can interfere with your ability to work or enjoy leisure activities. It can make activities such as driving dangerous.

How common is fatigue after TBI?

Fatigue is one of the most common problems people have after a traumatic brain injury. As many as 70% of survivors of TBI complain of mental fatigue.

What causes fatigue?

Fatigue is normal for anyone after hard work or a long day. In persons with TBI, fatigue often occurs more quickly and frequently than it does in the general population. The cause of fatigue after TBI is not clear but may be due to the extra effort and attention it takes to do even simple activities such as walking or talking clearly. Brain function may be less “efficient” than before the injury.

- Physical fatigue can come from muscle weakness. The body needs to work harder to do things that were easy before the TBI. Physical fatigue gets worse in the evening and is better after a good night’s sleep. Often this kind of fatigue will lessen as the individual gets stronger, more active and back to his or her old life.
- Psychological fatigue is associated with depression, anxiety and other psychological conditions. This type of fatigue gets worse with stress. Sleep may not help at all, and the fatigue is often at its worst when you wake up in the morning.

- Mental fatigue comes from the extra effort it takes to think after your brain is injured. Many common tasks take much more concentration than they did before. Working harder to think and stay focused can make you mentally tired.

Certain conditions are known to cause or increase fatigue:

- Depression
- Sleep problems, such as sleep apnea
- Seasonal allergies
- Hypothyroidism or other endocrine gland disorders
- Respiratory or cardiac problems
- Headaches
- Lack of physical exercise
- Vitamin deficiency/poor nutrition
- Stress
- Low red blood cell counts (anemia)
- Medications commonly used after TBI, such as muscle relaxers and pain medication

What can be done to decrease fatigue?

- Pay attention to what triggers your fatigue, and learn to identify the early signs of fatigue, such as becoming more irritable or distracted. Stop an activity before getting tired.
- Get more sleep and rest. If you have insomnia, tell your doctor. There may be a medical condition causing this, or there may be useful treatments.
- Set a regular schedule of going to bed and awakening the same time every day: your body and mind will be more efficient. Include some regular rest breaks or naps. Be careful to limit naps to 30 minutes and avoid evening naps.
- Alcohol and marijuana will generally make fatigue worse.
- Caffeine (coffee, cola products) should be avoided after lunch if sleeping is a problem
- Resume activities gradually, over weeks or even months.
- Start with familiar tasks at home or work that you can complete without fatigue. Gradually increase the complexity of each task, taking breaks as needed.
- Improve your time management:
    - Plan and follow a daily schedule. Using a calendar or planner can help manage mental fatigue.
    - Prioritize activities. Finish what is most important first
    - Do things that require the most physical or mental effort earlier in the day, when you are fresher.
    - Avoid over-scheduling.
    - If visitors make you tired, limit time with them.

- Exercise daily. Research has shown that people with TBI who exercise have better mental function and alertness. Over time, exercise and being more active helps lessen physical and mental fatigue and builds stamina. It also may decrease depression and improve sleep.
- Talk to your doctor:
    - Discuss medical or physical problems that may be causing fatigue.
    - Have your doctor review all your current medications.
    - Tell your doctor if you think you might be depressed so treatment can be started.
    - Ask your doctor if there are any blood tests that could help to find out what is causing your fatigue.

Fatigue and Traumatic Brain Injury was developed by Kathleen R. Bell, MD, in collaboration with the Model Systems Knowledge Translation Center. Portions of this document were adapted from materials developed by the Rocky Mountain Regional Brain Injury System, Carolinas Traumatic Brain Injury Rehabilitation and Research System, and the Mayo Clinic Traumatic Brain Injury Model System.